

REMARKS

I. Introduction

Claims 1 to 4 are currently pending. Claims 1 and 4 have been amended. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

II. Objections to claims 1, 2 and 4

Claims 1, 2 and 4 have been objected to based on the use of the term “release pattern.” With regard to the use of this term, the Examiner remarks that: a) the release pattern may be interpreted as a beginning marker, and end marker or both; and b) the term denotes some type of “release” and that such marks do not necessarily include a pattern. With regard to the first assertion, it is submitted that the “release” here indicates that the release pattern can be used to validate the integrity of stored data (or a stored program) and thus may act as a gatekeeper for the release of this data for its use. With respect to the second assertion, it is submitted that the “release pattern” may include a pattern of data that acts as a marker, i.e., the use of a “pattern” is not necessarily mutually inconsistent with the use of a “marker.” For these reasons, withdrawal of the objection to claims 1, 2 and 4 is respectfully requested.

III. Rejection of claims 1-4 Under 35 U.S.C. § 112, second paragraph

Claims 1-4 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. In response, claim 1 has been amended to remove the term “enclosing” and to recite “second subareas being situated in front of or behind” each of the first subareas. Claim 4 has been amended to remove the term “enclose” and to recite that the second subareas “are situated in front of or behind” each of the at least one first subarea. Accordingly, it is submitted that claims 1-4 are in compliance with 35 U.S.C. § 112, second paragraph.

IV. Rejection of Claims 1-4 Under 35 U.S.C. § 102(e)

Claims 1-4 have been rejected under 35 U.S.C. 102(e) as anticipated by U.S. Patent No. 6,144,607 to Sassa (“Sassa”). Applicants respectfully submit that Sassa does not anticipate claims 1-4 for the following reasons.

Claim 1, as amended, recites a method for writing and erasing a non-volatile memory area that includes writing at least one release pattern into first predetermined subareas of the memory area after an error-free writing of the memory area, providing second subareas in the memory area, the second subareas being situated in front of or behind each of the first subareas, and writing into each of the second subareas with an invalidity pattern prior to an erase operation.

The Examiner asserts that the technique disclosed in Sassa, i.e., writing an end flag after a writing operation and setting an erase flag prior to erasing, satisfies the limitations of claim 1. It is further asserted by the Examiner that these erase flags may be considered to enclose the end flags since “the flags of for example the first and last pages may be said to enclose any flags of pages in between.” It is submitted that these assertions made by the Examiner are not supported by the disclosure of Sassa. Referring to Figure 3C of the Sassa reference, it can be seen that each of the pages of memory shown, except for the last, contain a section reserved for so-called distributed management information. It is noted that each of these distributed management sections contain both an erase flag and an end flag. It is further noted that the section of page 0 includes an erase flag positioned before or in front of an end flag, and that page 1 also includes an erase flag positioned before an end flag. It can therefore be seen that the end flag of the distributed management information section of page 1 is not enclosed by an erase flag (i.e., does not have an erase flag positioned behind it). Or, put another way, the erase flag of page 1 is situated behind (or after) the end flag of page 0, but in front of (or before) the end flag of page 1. Therefore, it simply cannot be that the erase flag of page 1 is situated in front of or behind each of the end flags. For this reason alone, the memory management scheme disclosed in Sassa does not disclose the features of claim 1.

More fundamentally, since the Sassa reference does not provide the feature of “the second subareas being situated in front of or behind each of the first subareas,” the Sassa reference cannot provide for the determination as to whether a write or erase operation has completed successfully, which is one of the fundamental features of the present invention. In regard to this feature, the specification provides that:

According to the present invention, when working with a non-volatile, programmable memory, at least three independently programmable subareas are kept free in the memory area to be monitored. After the conclusion of a

successful programming, at least one of these subareas is filled with a release pattern. This release pattern should not correspond to the contents of an erased module in the memory area in question. Prior to a requested erase operation, an invalidity pattern is stored in each case in (at least) two further independent subareas. *In this context, the two subareas for the invalidity pattern surround all subareas for release patterns, that is to say, one invalidity pattern is still located before the subarea first written with a release pattern, and a further invalidity pattern is located after the subarea of the memory area last written with a release pattern.*

Therefore, the invalidity patterns of the present invention mark the memory area released for erasing. In the event of a premature abortion of the erase operation, this marking is retained, so that the area in question is identified as "invalid", and a subsequent restart by readout of the memory area can even be prevented in the event that the existing release patterns remain intact.

(Specification, page 3, lines 12-29; emphasis added). It is clear that Sassa does not in any way provide the functionality explained in the above-quoted paragraphs, and Sassa does not disclose the features of claim 1.

For the foregoing reasons, it is submitted that claim 1 and its dependent claims 2 and 3 are allowable over Sassa. Since claim 4 has been amended to recite features similar to the features of claim 1, it is submitted that claim 4 is allowable for essentially the same reasons that claim 1 is allowable.

VI. Conclusion

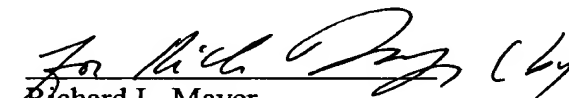
It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,


KENYON & KENYON

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By:


Richard L. Mayer
Reg. No. 22,490

One Broadway
New York, New York 10004
(212) 425-7200


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